

Cal., Commercial College, on "The business man and the weather map".

Mr. L. H. Daingerfield, April 28, 1907, before the Channing Club of Pueblo, Colo., on "Climate and life of Mesozoic North America".

Mr. R. J. Hyatt, April 9, 1907, before the State Arid Farming Convention, at Salt Lake City, Utah, on "The distribution of precipitation in Utah".

Mr. J. Warren Smith, March 9, 1907, before the Columbus, Ohio, Young Men's Christian Association, on "The work of the Weather Bureau".

Mr. R. H. Sullivan, April 16, 1907, before pupils of the Emerson School, Wichita, Kans., on "The atmosphere".

Mr. A. H. Thiessen, April 18, 1907, before the classes in science at Peace Institute, Raleigh, N. C., on "Forecasting the weather".

Classes from universities, schools, and colleges have visited the Weather Bureau offices to study the instruments and equipment and receive informal instruction, as reported from the following stations:

Albany, N. Y., November 8, 1906, the physical geography class of the State Normal College; February 14, 1907, the junior class of the State Normal College; March 23, 1907, the juniors of the Albany Young Men's Christian Association; May 14, 1907, the physical geography class of the Rensselaer High School.

Columbus, Ohio, March 2, 1907, a class in geology from the Ohio State University; March 5, 1907, the physical geography class of the State Institution for the Blind.

Pueblo, Colo., April 16 and 23, 1907, pupils of the Fountain Public School.

Raleigh, N. C., April 2, 1907, a class in physics from the Baptist University.

#### RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY.

H. H. KIMBALL, Librarian.

The following titles have been selected from among the books recently received, as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies. Most of them can be loaned for a limited time to officials and employees who make application for them.

**Bracke, Albert.**

Déformations du soleil. Mons. n. d. 16 p. 16°. (Série des curiosités de l'atmosphère. No. 1.)

Nuages irisés. Mons. n. d. 16 p. 16°. (Série des curiosités de l'atmosphère. No. 4.)

Promenade dans la neige. Mons. n. d. 16 p. 16°. (Série des curiosités de l'atmosphère. No. 3.)

Trombes de Belgique. Mons. n. d. 16 p. 16°. (Série des curiosités de l'atmosphère. No. 2.)

**Bruel, Georges.**

Le cercle du Moyen-Logone. Paris. 1905. 131 p. 8°.

**Bürgel, Bruno H.**

Wetter-Kalender und kritische Tage für das Jahr 1907. Januar-Juni. Berlin. [1906?] 87 p. 24°.

**Drescher, C.**

Kosmische Schneewolken. 2 Auflage. Breslau. 1904. 31 p. 8°.

**Duncan, Robert Kennedy.**

The new knowledge. London. 1906. xviii, 263 p. 8°.

**Grühn, Ph.**

Die Temperaturverhältnisse Schleswig-Holsteins und Dänemarks. Meldorf. 1896. 30; 24 p. 4°. (Beitr. Jahressb. Gymn. Meldorf. 1895-96; 1896-97.)

**Hahn, R.**

Das Wetter, die Winde und die Strömungen der Meere. Hamburg. [1904.] 48 p. 4°.

**Hollman, M.**

Wetterkunde. Eine allgemeinverständliche Anleitung zur Beurteilung der Wetterlage. Berlin. 1907. 52 p. 12°.

**Hutter, Franz.**

Wanderungen und Forschungen im Nord-Hinterland von Kamerun. Braunschweig. 1902. xiii, 578 p. 4°.

**Ihne, E.**

Phaenologische Mitteilungen (Jahrgang 1905). n. p. n. d. 28 p. 8°. (S.-A. Abhandl. d. Naturh. Gesellsch. 16 Bd., H. 1. Nürnberg.)

**Jefferson, Mark S. W.**

Rainfall of the lake country for the last 25 years. n. p. n. d. p. 78-97. 8°. (Repr. 8th annual report Mich. acad. of sc. [1906].)

**Kaiser, Max.**

Land- und Seewinde an der deutschen Ostseeküste. Inaug.-Diss. . . Halle a. S. Halle a. S. 1906. 22 p. 4°.

**Krebs, H.**

Was ist morgen für Wetter? Berlin. 1907. 59 p. 12°.

**Luedcke, C.**

Das Verhältnis zwischen der Menge des Niederschlages und des Sickerwassers nach englischen Versuchen. Berlin. 1906. p. 615-646. 4°. (S.-A. Mitt. Landwirtsch. Inst. Königl. Univ. Breslau. 3 Bd. Heft 5.)

**MacGregor, Sir William.**

Address . . . delivered at the opening of the Newfoundland agricultural exhibition, in the British hall, St. John's, 17th October, 1906. n. p. n. d. 6 p. With tables. f°.

**Marloth, R.**

Results of experiments on Table Mountain for ascertaining the amount of moisture deposited from the southeast clouds. n. p. n. d. p. 403-408. 4°. (Fr. Trans. South African phil. soc. v. 14. Pt. 4. Oct., 1903.)

Results of further experiments on Table Mountain for ascertaining the amount of moisture deposited from the southeast clouds. (Fr. Trans. South African phil. soc. v. 16. Pt. 2. Oct., 1905.)

**Netherlands. Koninklijk Nederlandsch meteorologisch instituut.**

Annuaire. 27 année. 1905. A. Météorologie. Utrecht. 1907. xxxvi, 260 p. f°.

**Otto, —.**

Das Klima von Eisleben nach den meteorologischen Beobachtungen der Jahre 1885-1905. Eisleben. 1906. 19 p. 8°. (Beil. Jahressb. Königl. Gymn. zu Eisleben 1906.)

**Pernter, J. M.**

Der Formenreichtum der Schneekristalle. Berlin. 1907. 32 p. 12°. (Vorträge Ver. naturw. Kennt. Wien. 46. Jahrg. Heft 15.)

**Petre, F. Lorraine.**

The republie of Colombia. London. 1906. xii, 352 p. 8°.

**Rizzo, G. B.**

Contributo allo studio del terremoto della Calabria del giorno 8 settembre 1905. (Estr. Atti della R. Acad. Peloritana. v. 23. Fase. 1.) Messina. 1907. 86 p. 8°.

**Rotch, Abbott Lawrence.**

Did Benjamin Franklin fly his electrical kite before he invented the lightning rod? Worcester, Mass. 1907. 8 p. 8.

**St. Petersburg. Institut impérial forestier. Observatoire météorologique.**

Observations 1905. St. Petersburg. 1907. xii, 73 p. 12°.

**Schück, A.**

Zwei magnetische Beobachtungen vor der Westküste Norwegens im Jahre 1902. Beiträge zur Meereskunde. Hamburg. 1905. v. p. 4°.

**Spariosu, Basil.**

Wissenschaftlich begründete Wetter-Prognose für das Jahr 1907. Kremsmünster. n. d. 4 p. 24°.

**Sreznevskii, B.**

Ezhemiesiachnye obzory pogody v Evropie i preimushchestvenno v Evrop. Rossii (khronika pogody) za 1900. . . [Monthly review of the weather of Europe and especially of European Russia.] . . . St. Petersburg. 1902. viii, 126 p. 4°.

**Stonyhurst (England). Stonyhurst college observatory.**

Results of meteorological and magnetalical observations. 1906. Clitheroe. 1907. vi, 56 p. 12°.

**Tananarive. Observatoire de Madagascar.**

Observations météorologiques. . . 1904. Tananarive. 1906. vi, 265 p. 8°.

**Vernon, Edward.**

Is it going to rain? 2d ed. Edinburgh. n. d. 106 p. 16°.

**Vregille, Pierre de.**

L'Observatoire Tananarive (1898-1906). n. t. p. 12 p. 8°.

**Weber, Sir Hermann, and Weber, F. Parker.**

Climatotherapy and balneotherapy. London. 1907. 833 p. 4°.

**Western Australia. Government astronomer.**

Meteorological observations made at the Perth observatory and other places in Western Australia during the year 1905. Perth. 1906. 143 p. f°.

#### RECENT PAPERS BEARING ON METEOROLOGY.

H. H. KIMBALL, Librarian.

The subjoined titles have been selected from the contents of the periodicals and serials recently received in the Library of the Weather Bureau. The titles selected are of papers or other communications bearing on meteorology or cognate

branches of science. This is not a complete index of the meteorological contents of all the journals from which it has been compiled; it shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau. Unsigned articles are indicated by a —

*American geographical society. Bulletin. New York. v. 39. May, 1907.*

Huntington, Ellsworth. Archaeological discoveries in Chinese Turkestan. [Includes remarks on climate of Turfan.] p. 268-272.

*American monthly review of reviews. New York. v. 35. May, 1907.*

— Animals as weather prophets. p. 626-629.

*Japan. Imperial earthquake investigation committee. Bulletin. Tokyo. Mch., 1907.*

Omori, F. Preliminary note on the Formosa earthquake of March 17, 1906. p. 53-69.

Omori, F. Comparison of the faults in the three earthquakes of Mino-Owari, Formosa, and San Francisco. p. 70-72.

Omori, F. Note on the transit velocity of the Formosa earthquakes of April 14, 1906. p. 73-74.

Omori, F. Notes on the Valparaiso and Aleutian earthquakes of August 17, 1906. p. 75-113.

Omori, F. On the distribution of recent Japan earthquakes. p. 114-123.

*Meteorological society of Japan. Journal. Tokyo. 2d year. Mch., 1907.*

Yamada, J. On the snow temperature observed at Kamikawa. (Japanese.)

Toida, T. Halos as the indicator of coming rain. (Japanese.)

*National geographic magazine. Washington. v. 18. May, 1907.*

McCurdy, Arthur W. Factors which modify the climate of Victoria. p. 345-348.

*Nature. London. v. 75.*

— The Belgian international balloon service. (Apr. 11, 1907.) p. 572-573.

— Meteorological optics. [Review and résumé of Perner's Meteorologische Optik.] (Apr. 18, 1907.) p. 577-578.

M. W. The twentieth year at Blue Hill observatory. (Apr. 18, 1907.) p. 593-594.

Chree, Charles. The life work of an eminent meteorologist. [Review of the collected meteorological papers of W. von Bezold.] (May 9, 1907.) p. 28-29.

Thompson, D'Arcy W. The temperature of the North Sea. [Abstract.] (May 9, 1907.) p. 43-45.

*Physical Review. Lancaster. v. 24. May, 1907.*

Fisher, Willard J. The temperature coefficients of gas viscosity. p. 385-401.

*Popular science monthly. New York. Vol. 70. May, 1907.*

Brown, Charles W. The Jamaica earthquake. p. 385-403.

*Royal meteorological society. Quarterly journal. London. v. 33. Apr., 1907.*

Bentley, R. Weather in war time. p. 81-138.

Mawley, Edward. Report on the phenological observations for 1906. p. 139-163.

Inwards, Richard. The metric system in meteorology. p. 165-171.

*Scientific American supplement. New York. v. 63.*

Geitel, H. Radioactivity and atmospheric electricity. (Apr. 27, 1907.) p. 26176-26177.

Larsen, Alex. Photographing lightning with a moving camera. (May 4, 1907.) p. 26200-26202.

Stendel, —. The intensity of the tropical sun and its effect on the human body. (May 11, 1907.) p. 26214.

Gradenwind, Alfred. A new direct-reading wind gage. (May 18, 1907.) p. 26232.

*Symons's meteorological magazine. London. v. 42. Apr., 1907.*

Page, Reginald. Remarks on a waterspout and accompanying phenomena, encountered in the Euxine. p. 46-48.

Ciel et terre. Bruxelles. 28 année. 16 avril 1907.

L., V. D. A propos de la couche isothermique supérieure. [Note.] p. 104-108.

— La Fata Morgana [as observed on Lake Geneva]. p. 108.

*France. Académie des sciences. Comptes rendus. Paris. Tome 144.*

Teisserenc de Bort, L[eon], and Rotch, L[awrence]. Caractères de la circulation atmosphérique intertropicale. (8 avril 1907.) p. 772-774.

Bigourdan, G. Sur les tremblements de terre des 15, 18 et 19 avril 1907, enregistrés à Paris. (22 avril 1907.) p. 823-824.

Brunhes, Bernard. Action d'un courant aérien horizontal sur un tourbillon vertical. (29 avril 1907.) p. 900-902.

*Géographie (La). Paris. v. 14. Année 1906. 15 oct.*

Brunhes, Jean. L'allure réelle des eaux et des vents enregistrés par les sables. p. 193-210.

*Girardin, Paul. La sécheresse dans le Jura en 1906. p. 277-279.*

*Monaco. Musée océanographique de Monaco. Bulletin.*

Berget, A. Les courants marins. (No. 73. 10 mai 1906.) p. 1-19.

Berget, A. Utilité de l'étude des courants. (No. 77. 5 Juin 1906.) p. 1-18.

Legendre, R. Le teneur en acide carbonique de l'air marin. (No. 84. 15 nov. 1906.) p. 1-8.

*Nature (La). Paris. 35 année.*

Latour, A. Les aurores boréales. [Abstract of paper by P. Villard.] (20 avril 1907.) p. 326-327.

Milloc'hau, A. La température du soleil. [Includes picture and description of the pyrheliometric telescope.] (27 avril 1907.) p. 338-342.

Bellot, Daniel. La vie et le travail dans l'air comprimé. (4 mai 1907.) p. 366-368.

*Revue néphologique. Mons. Avril 1907.*

Defant, A. Dépendance de la radiation calorifique diffuse de l'époque de l'année. p. 121-124.

Bracke, A. L'appréciation de la nébulosité. p. 124-125.

*Société météorologique de France. Annuaire. Paris. 55 année.*

Besson, L. Recherches expérimentales sur l'orientation des cristaux de glace atmosphériques. (Fév., 1907.) p. 40-50.

Garrigou-Lagrange, P. Pluies, rivières et sources du Limousin. [Relations of rainfall to stream flow; experiments under conditions very favorable for observation.] p. 50-52.

*Annalen der Hydrographie und maritimen Meteorologie. Berlin. 35 Jahrgang. 1907.*

Kaiser, Max. Land- und Seewinde an der deutschen Ostseeküste. p. 149-163.

*Deutsche geographische Blätter. Bremen. Band 30. Heft 1.*

Breu, Georg. Neue Gewitterstudien an Oberbayrischen Seen. p. 24-30.

*Geographische Zeitschrift. Leipzig. 13 Jahrgang. 1907.*

Sapper, Karl. Die geographische Verbreitung der Erdbeben. p. 142-152.

*Himmel und Erde. Berlin. 19 Jahrgang. April 1907.*

Koppe, —. Die relative Feuchtigkeit der Luft an der Riviera. p. 311-315.

Krebs, Wilhelm. Auslaufen westatlantischer Taifunwirbel an europäischen Gestaden. p. 316-323.

*Illustrierte aeronautische Mitteilungen. Strassburg. 11 Jahrgang. Apr., 1907.*

Berson, Arthur. Wilhelm v. Bezold. p. 105-108.

*Meteorologische Zeitschrift. Braunschweig. Band 24. April, 1907.*

Ekhholm, Nils. Ueber die unperiodischen Luftdruckschwankungen und einige damit zusammenhängende Erscheinungen. p. 145-159.

Conrad, Victor. Bildung und Konstitution der Wolken. [Reviews the recent theories of cloud formation and structure.] p. 159-166.

Köppen, W. Zur Theorie der täglichen Periode der Windstärke. p. 166-171.

Mazelle, Ed. Kälteeinbruch und Bora in Triest, Januar 1907. p. 171-172.

— Temperaturmaxima in Frankreich. p. 172-173.

Linke, F. Ueber meteorologische Drachenaufstiege auf Samoa. [General similarity of results to those obtained by Hergesell in the northern trade-belt.] p. 173-174.

Busch, Fr. Der Bischofsche Ring in den Jahren 1905 und 1906 nach Beobachtungen in Arnsberg. p. 175-176.

H[ann], J[ulius]. Zum Klima von China. [Results of 10 years' observations at Ho-kien (Huo-ku?).] p. 178-179.

Hann, J[ulius]. G. Bruel über die Meteorologie der Region des Schari. p. 179-180.

Hann, J[ulius]. Zum Klima der Eritrea (Abessinien). [Includes collected data 1894-1905, and normals.] p. 181-184.

— Resultate der meteorologischen Beobachtungen zu Dawson City im Jahre 1904. p. 185.

Jensen, Chr. Bemerkungen im Anschluss an die letzte Arbeit des Herrn Sach über die neutralen Punkte von Babinet und Arago in den Jahren 1903 und 1904. p. 185-187.

*Naturwissenschaftliche Rundschau. Berlin. 22 Jahrgang. 2 Mai 1907.*

Kruger, —. P. Schreiber ueber den Stand des Prognosenwesens im Gebiete des Königreichs Sachsen. [Abstract.] p. 220-232.

*Physikalische Zeitschrift. Leipzig. 8 Jahrgang. 1 Mai 1907.*

Daunderer, A. Luftelektrische Messungen. p. 281-286.

Eve, A. S. Die Ionisation der Atmosphäre über dem Ozean. [Observations indicating the amount of ionization over the N. Atlantic to be about the same as over Europe and N. America.] p. 286-292.

*Sonnbllick Verein. 15 Jahres-Bericht. Wien. 1906.*

Obermayer, A. von. Zwanzig Jahre meteorologischer Beobachtung auf dem Ben Nevis. p. 5-30.

Hann, Julius. Ergebnisse 20 jähriger meteorologischer Beobachtungen auf den Sonnbllickgipfel. p. 31-37.

— Resultate der meteorologischen Beobachtungen 1906 auf dem Sonnbllick, in Bucheben, in Mallnitz und auf der Zugspitze. p. 42-45.

*Weltall (Das). Berlin. 7 Jahrgang.*

Krebs, Wilhelm. Zur barometrischen Bestimmung von Hochstürmen der Atmosphäre. (April 15, 1907.) p. 206-212.

Krebs, Wilhelm. Zeitgenössische Schilderung des Erdbebens von 1692 auf Jamaika und seiner Folgen. (April 15, 1907.) p. 214-216. May 1, 1907.) p. 233-236.